

II. REMARKS

Claims 1, 4-24, 26-47, and 49-69 are pending. The Applicants' attorney has amended claims 1, 6, 9-10, 12-13, 15, 18-20, 22, 24, 27-32, 34-37, 41-43, 46-47, 50-55, 57, and 59-69, and has cancelled claims 3 (claim 1 now incorporates the subject matter of claim 3) and 48 (claim 46 now incorporates the subject matter of claim 48) without prejudice or disclaimer. In light of the following, all of the claims are now in condition for allowance; therefore, the Applicants' attorney requests the Examiner to withdraw all of the outstanding objections and rejections.

The Applicants' attorney, Bryan Santarelli, thanks the Examiner for conducting a telephone interview with Mr. Santarelli on June 23, 2006.

During the interview, the Examiner agreed that even if U.S. 4,951,150 to Browning states or implies that one can generate from a same side of a screen write and erase beams that respectively write and erase a region of the screen that they strike, the apparatus disclosed in Browning and suggested by the combination of Browning and the prior art disclosed in the patent application are incapable of doing this — per the Examiner's request, a detailed discussion of why this is so is provided below in conjunction with the discussion of claim 69. Consequently, because neither Browning nor the combination of Browning and the disclosed prior art enables one of skill in the art to construct an apparatus capable of generating from a same side of a screen write and erase beams that respectively write and erase a region of the screen that they strike, the Examiner agreed that claims including this or a similar limitation patentably define over Browning and the combination of Browning and the disclosed prior art.

Mr. Santarelli indicated that the Applicants would consider filing a terminal disclaimer if the Examiner found judicial-type double patenting between claims of the patent application and related copending application Ser. No. 09/858,688.

The Examiner also stated that if after considering this response he continues to believe that not all of the claims are allowable, he will contact Mr. Santarelli to schedule and conduct another telephone interview before issuing a subsequent Office Action.

Rejection of Claim 69 Under 35 U.S.C. § 102(b) As Being Anticipated By U.S. Patent 4,951,150 to Browning

As discussed below, the Applicants' attorney disagrees with this rejection.

Claim 69

Claim 69 as amended recites changing the brightness of a first region of an image screen according to a first polarity with a first electromagnetic beam that is incident on the first region, and simultaneously changing the brightness of a second region of the image screen according to a second polarity with a second electromagnetic beam that is incident on the second region from the same direction as the first beam.

For example, referring to FIG. 2 of the patent application, an electromagnetic erase (first) beam 52 is incident on and changes the brightness of a first region 44 of an image screen 34 according to an off (first) polarity, and an electromagnetic image (second) beam is incident on and simultaneously changes the brightness of a second region 44 of the image screen according to an on (second) polarity. The off and on beams are incident of the regions 44 from the same direction, *i.e.*, from the same side of the screen 34.

In contrast, as discussed with the Examiner, the embodiments disclosed and suggested by Browning require simultaneous erase and write beams be directed onto the regions of the screen from different sides, where the write and erase beams each change the brightness level of a respective region while striking the respective region.

Referring to FIGS. 2 and 6 and col. 8, line 19 – col. 9, line 16, Browning's system 10 generates an image on the image plate 54 by varying the degree of light scattering in regions of the image plate. The system 10 varies the degree of light scattering in a region by applying an electric field to the region. The polarity of the electric field determines whether the region becomes more transparent or more opalescent, and the strength of the electric field determines the level of transparency or opalescence. Specifically, if the electrode 56 is positive relative to the electrode 52, then the regions of the image plate 54 between the two electrodes become more transparent. Conversely, if the electrode 56 is negative relative to the electrode 52, then the regions of the image plate 54 between the

two electrodes become more opalescent. Therefore, because the electrode 52 is grounded, one erases the image plate 54 (transparent state) by applying a positive voltage V_b to the electrode 56, and generates pixels (opalescent state) of an image by applying a negative voltage to the electrode 56 with an electron beam 36. Consequently, any electron beam incident on the electrode 56 will write an image because it will make the electrode 56 negative relative to the electrode 52. Therefore, the only way to erase an image with a second electron beam directed onto the erase regions is by allowing the electrode 52 to float and directing the second electron beam onto the electrode 52 from the side of the imaging plate 54 on which the electrode 52 is disposed. This second electron beam will erase the image plate 54 by making the electrode 52 negative relative to the electrode 56. Consequently, Browning's write and erase electron beams must be incident from opposite sides of the imaging plate 54. If these beams are incident from the same side of the imaging plate 54, then they will both write or erase the imaging plate 54, but will be unable to do both.

Furthermore, referring to Browning's FIGS. 3 - 5, even if Browning's system 10 can simultaneously generate write and erase electron beams that strike the imaging plate 54 from the same side, the erase beam does not and cannot erase a region on which the erase beam is incident or a region substantially perpendicularly aligned with the region on which the erase beam is incident. The electrode 56 includes a number of "fingers" 64. Per the preceding paragraph, when a positive voltage V_b is applied to a finger 64, then the regions of the plate 54 beneath the finger 64 are erased. To apply the positive voltage V_b to a finger 64, one can direct an electron beam onto a switch 66. The electron beam closes the switch 66, which couples V_b to the finger 64. But if the electron beam strikes the finger 64 directly, then the beam generates a pixel in the region of the image plate 54 beneath (perpendicularly aligned with) the region of the finger that the beam strikes; thus the beam acts as a write beam, not an erase beam. Therefore, even if Browning's system can simultaneously direct a write electron beam onto a region of the electrode 56 and an erase electron beam onto a switch 66, this erase electron beam does not and cannot erase a region of the imaging plate 54 while incident on a corresponding region of the electrode 56. That is, even considering that the electrode 56 and the imaging plate 54 together form a

screen, the erase electron beam does not and cannot erase a region of the screen while incident on the region.

Rejection of Claims 1-69 Under 35 U.S.C. § 103(a) As Being Unpatentable Over The Admitted Prior Art In FIG. 1 Of The Patent Application In View Of Browning

As discussed below, the Applicants' attorney disagrees with this rejection.

Claim 1

Claim 1 as amended recites a beam generator operable to simultaneously direct an electromagnetic off-beam and an electromagnetic on-beam onto respective first and second regions of a scan surface from a single side of a projection screen, the regions of the scan surface perpendicularly aligned or substantially perpendicularly aligned with respective first and second regions of a projection surface, the off-beam operable to change the brightness of the first region of the projection surface to a selected off-condition, and the on-beam operable to change the brightness of the second region of the projection surface from the selected off-condition to a desired brightness level.

For example, referring to FIG. 2 of the patent application, an image (beam) generator 53 simultaneously directs an electromagnetic erase (off) beam 52 and an electromagnetic image (on) beam 42 onto respective first and second regions 44 of a scanning surface 38 from a single side of a projection screen 34, the regions 44 of the scanning surface perpendicularly aligned or substantially perpendicularly aligned with corresponding first and second regions of a projection surface 36 of the screen 34. The erase beam 52 changes the brightness of the first region of the projection surface 36 to a selected off condition, and the image beam 42 changes the brightness of the second region of the projection surface 36 from the selected off condition to a desired brightness level.

In contrast, the combination of the prior-art FIG. 1 and Browning does not suggest the claimed subject matter.

As discussed above in support of the patentability of claim 69, Browning does not disclose or suggest simultaneously directing first and second electromagnetic beams onto

first and second regions of the image projector from a single side of the image projector, and changing the brightness levels of the regions with the beams.

Furthermore, FIG. 1 of the patent application does not disclose or suggest simultaneously directing first and second electromagnetic beams onto the regions of an image projector from a single side of the image projector. If the image beam 42 and erase burst 40 were simultaneously directed onto the screen 34, then the image beam and erase burst would cancel each other out such that no discernable image would be written onto the screen 34.

Consequently, the combination of Browning and FIG. 1 of the patent application lacks the teaching and suggestion of simultaneously directing first and second electromagnetic beams onto the regions of an image projector from a single side of the image projector, and changing the brightness levels of the regions with the beams.

Claims 4-8, 58, and 59

These claims are patentable by virtue of their dependencies from claim 1.

Claim 9

Claim 9 is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 10-17 and 60

These claims are patentable by virtue of their dependencies from claim 9.

Claim 18

Claim 18 is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Claims 19-23 and 61

These claims are patentable by virtue of their dependencies from claim 18.

Claim 24

Claim 24 is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Claims 26-27 and 62

These claims are patentable by virtue of their dependencies from claim 24.

Claim 28

Claim 28 is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Claims 29-33 and 63

These claims are patentable by virtue of their dependencies from claim 28.

Claim 34

Claim 34 is patentable for reasons similar to those discussed above in support of the patentability of claim 1.

Claims 35-36 and 64

These claims are patentable by virtue of their dependencies on claim 34.

Claim 37

This claim is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 38-42 and 65

These claims are patentable by virtue of their dependencies on claim 37.

Claim 43

This claim is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 44-45 and 66

These claims are patentable by virtue of their dependencies on claim 43.

Claim 46

This claim is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 47, 49-57, and 67

These claims are patentable by virtue of their dependencies on claim 46.

Claims 68-69

These claims are patentable for reasons similar to those recited above in support of the patentability of claim 1.

Conclusion

In light of the foregoing, claims 4-5, 7-8, 11, 14, 16-17, 21, 23, 26, 33, 38-40, 44-45, 49, 56, and 58 as previously pending and claims 1, 6, 9-10, 12-13, 15, 18-20, 22, 24, 27-32, 34-37, 41-43, 46-47, 50-55, 57, and 59-69 as amended are in condition for allowance, which is respectfully requested.

In the event additional fees are due as a result of this amendment, payment for those fees has been enclosed in the form of a check. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

If, after considering this response, the Examiner does not believe that all of the claims are allowable, then he is requested to contact the Applicants' attorney, Bryan Santarelli, at (425) 455-5575 to schedule a telephone conference.

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Respectfully Submitted,

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